

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Canceled).

Claim 2. (Previously Presented) A vector which comprises at least one nucleic acid of Claim ~~35~~¹.

Claim 3. (Previously Presented) The vector of Claim 2, wherein the nucleic acid is functionally linked to regulatory sequences which ensure expression of the nucleic acid in a prokaryotic cell or a eukaryotic cell.

Claim 4. (Previously Presented) A host cell which contains a nucleic acid of Claim ~~35~~¹.

Claim 5. (Previously Presented) The host cell of Claim 4, wherein said host cell is a prokaryotic cell or a eukaryotic cell.

Claim 6. (Previously Presented) The host cell of Claim 5, wherein the prokaryotic cell is E.coli.

Claim 7. (Previously Presented) The host cell of Claim 5, wherein the eukaryotic cell is a mammalian cell or an insect cell.

Claims 8-9 (Canceled).

Claim ~~10~~³. (Previously Presented) A process for preparing a polypeptide encoded by a nucleic acid of Claim ~~35~~¹ comprising

- (a) culturing a prokaryotic cell or a eukaryotic cell in a culture medium, said prokaryotic cell or said eukaryotic cell comprising a vector comprising at least one nucleic acid of Claim ~~35~~¹, wherein the nucleic acid is functionally linked to regulatory sequences which ensure expression of the nucleic acid in the prokaryotic cell or the eukaryotic cell and wherein culture conditions allow expression of a polypeptide or polypeptides encoded by the nucleic acid, and

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- (b) isolating the encoded polypeptide or polypeptides from the prokaryotic cell or the eukaryotic cell and/or optionally where the encoded polypeptide or polypeptides are secreted in the culture medium, isolating the polypeptide or polypeptides from the culture medium.

Claims 11-21 (Canceled).

Claims 22-23 (Canceled).

Claim ⁹~~24~~. (Previously Presented) A host cell containing a vector according to Claim 2.

Claim ¹⁰~~25~~. (Previously Presented) A host cell containing a vector according to Claim 3.

Claim ¹¹~~26~~. (Previously Presented) The host cell of Claim ⁹~~24~~ wherein said host cell is a prokaryotic cell or a eukaryotic cell.

Claim ¹²~~27~~. (Previously Presented) The host cell of Claim ¹⁰~~25~~ wherein said host cell is a prokaryotic cell or a eukaryotic cell.

Claim ¹³~~28~~. (Previously Presented) The host cell of Claim ¹¹~~26~~ wherein said host cell is an E. coli cell.

Claim ¹⁴~~29~~. (Previously Presented) The host cell of Claim ¹²~~27~~ wherein said host cell is an E. coli cell.

Claim ¹⁵~~30~~. (Previously Presented) The host cell of Claim ¹¹~~26~~ wherein said host cell is a mammalian cell or an insect cell.

Claim ¹⁶~~31~~. (Previously Presented) The host cell of Claim ¹²~~27~~ wherein said host cell is a mammalian cell or an insect cell.

Claims 32-33 (Canceled).

Claim 34 (Canceled).

Claim ¹⁷~~35~~. (Currently Amended) An isolated nucleic acid comprising a sequence selected from

- (a) a sequence according to nucleotide No. 372 to nucleotide No. 2681 of SEQ ID NO: 1, nucleotide No. 335 to nucleotide No. 1822 of SEQ ID NO: 3 or nucleotide No. 95 to nucleotide No. 1597 of SEQ ID NO: 5,
- (b) a sequence complementary to the sequences defined under (a), and
- (c) a sequence which, due to degeneracy of the genetic code, encodes

the same amino acid sequences as those encoded by the sequences defined under (a),

~~wherein said nucleic acid encodes a complete or partial acetylcholine receptor subunit having the ability to form homooligomeric acetylcholine receptors when expressed in a host cell~~ wherein nucleotides 372-2681 of SEQ ID NO:1, nucleotides 335-1822 of SEQ ID NO:3, and nucleotides 95-1597 of SEQ ID NO: 5 encode an acetylcholine receptor subunit having the ability to form homooligomeric acetylcholine receptors when expressed in a host cell.

Claim 36. (Canceled).